

INTERNATIONAL SEARCH REPORT

IB2004/052556

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04B3/23

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>MARQUES P A C ET AL: "A DSP based long distance echo canceller using short length centered adaptive filters"</p> <p>ACOUSTICS, SPEECH, AND SIGNAL PROCESSING, 1997. ICASSP-97., 1997 IEEE INTERNATIONAL CONFERENCE ON MUNICH, GERMANY 21-24 APRIL 1997, LOS ALAMITOS, CA, USA, IEEE COMPUT. SOC, US,</p> <p>vol. 3, 21 April 1997 (1997-04-21), pages 1885-1888, XP010226510</p> <p>ISBN: 0-8186-7919-0</p> <p>page 1885, left-hand column, lines 6TH, LAST - lines 3RD, LAST; figure 3</p> <p>page 1885, right-hand column, paragraphs SECTION, 2</p> <p style="text-align: center;">----- -/--</p>	1

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

14 February 2005

Date of mailing of the international search report

01/03/2005

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>MADER A ET AL: "Step-size control for acoustic echo cancellation filters - an overview"</p> <p>SIGNAL PROCESSING, AMSTERDAM, NL, vol. 80, no. 9, September 2000 (2000-09), pages 1697-1719, XP004215534</p> <p>ISSN: 0165-1684</p> <p>cited in the application</p> <p>page 1710, paragraphs SECTION,4.4 - page 1711, paragraphs SECTION,4.4.1</p> <p>-----</p>	1-9
X	<p>EP 0 872 962 A (NOKIA MOBILE PHONES LTD; NOKIA TELECOMMUNICATIONS LIMITED; NOKIA CORPO) 21 October 1998 (1998-10-21)</p> <p>abstract; figure 3</p> <p>page 3, line 20 - line 35</p> <p>page 5, line 5 - line 54</p> <p>-----</p>	1-9
X	<p>WALLACE R B ET AL: "Parallel adaptive filter structures for acoustic noise cancellation"</p> <p>PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON CIRCUITS AND SYSTEMS. SAN DIEGO, MAY 10 - 13, 1992, PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON CIRCUITS AND SYSTEMS. (ISCAS), NEW YORK, IEEE, US, vol. VOL. 4 CONF. 25, 3 May 1992 (1992-05-03), pages 525-528, XP010061282</p> <p>ISBN: 0-7803-0593-0</p> <p>abstract</p> <p>page 526, paragraphs SECTION,4; figure 4</p> <p>-----</p>	1-9
X	<p>EP 0 194 738 A (NORTHERN TELECOM LIMITED) 17 September 1986 (1986-09-17)</p> <p>abstract; figure 1</p> <p>column 3, line 2 - line 28</p> <p>-----</p>	1-9
X	<p>PATENT ABSTRACTS OF JAPAN</p> <p>vol. 011, no. 400 (E-569), 26 December 1987 (1987-12-26)</p> <p>& JP 62 159925 A (NEC CORP), 15 July 1987 (1987-07-15)</p> <p>abstract</p> <p>-----</p>	1
X	<p>PATENT ABSTRACTS OF JAPAN</p> <p>vol. 009, no. 075 (E-306), 4 April 1985 (1985-04-04)</p> <p>& JP 59 211338 A (NIPPON DENKI KK), 30 November 1984 (1984-11-30)</p> <p>abstract</p> <p>-----</p>	1-9
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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X	EP 0 627 840 A (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD) 7 December 1994 (1994-12-07) abstract; claim 1; figures 1,8,14 page 3, line 16 - page 4, line 19 -----	1-9
A	US 4 591 669 A (DUTTWEILER ET AL) 27 May 1986 (1986-05-27) the whole document -----	1-9
A	US 5 406 622 A (SILVERBERG ET AL) 11 April 1995 (1995-04-11) the whole document -----	1-9
A	EP 0 525 456 A (SHARP KABUSHIKI KAISHA) 3 February 1993 (1993-02-03) page 4, line 48 - page 5, line 16; figure 1 -----	1-9

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